UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | F | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|------------|------------|----------------------|-------------------------|------------------|
| 09/888,173 | 06/22/2001 | | Vladimir V. Petunin | 2282P113 | 8844 |
| 22907 | 7590 | 08/18/2006 | | EXAMINER | |
| BANNER (| | | SINGH, RAMNANDAN P | | |
| SUITE 1100 | | | ART UNIT | PAPER NUMBER | |
| WASHING | TON, DC | 20001 | 2614 | | |
| | | | | DATE MAILED: 08/18/2006 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | Application No. | Applicant(s) | | | | |
|--|--|--|--|--|--|--|--|
| | | 09/888,173 | PETUNIN, VLADIMIR V. | | | | |
| | Office Action Summary | Examiner | Art Unit | | | | |
| | | Ramnandan Singh | 2614 | | | | |
| Period fo | The MAILING DATE of this communication ap or Reply | pears on the cover sheet with t | he correspondence address | | | | |
| WHI(- Exte after - If NC - Failu Any | ORTENED STATUTORY PERIOD FOR REPLICATION OF THE MAILING Ensions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. Period for reply is specified above, the maximum statutory period reto reply within the set or extended period for reply will, by statut reply received by the Office later than three months after the mailined patent term adjustment. See 37 CFR 1.704(b). | DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply will apply and will expire SIX (6) MONTHS te, cause the application to become ABAND | FION. be timely filed from the mailing date of this communication. DONED (35 U.S.C. § 133). | | | | |
| Status | | | | | | | |
| 1)⊠ | Responsive to communication(s) filed on 22. | luna 2001 | | | | | |
| | | is action is non-final. | | | | | |
| 3) | Since this application is in condition for allowa | | prosecution as to the merits is | | | | |
| ٠,١ | closed in accordance with the practice under | | | | | | |
| Disposit | ion of Claims | , | ., | | | | |
| _ | | ion | | | | | |
| 7) | Claim(s) is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5)□ | Claim(s) is/are allowed. | | | | | | |
| | | | | | | | |
| 7) | | | | | | | |
| •— | Claim(s) <u>1-18</u> are subject to restriction and/or | election requirement | | | | | |
| | | coconon requirement. | | | | | |
| | ion Papers | | | | | | |
| | The specification is objected to by the Examin | | | | | | |
| 10)[_] | The drawing(s) filed on is/are: a) ac | • | | | | | |
| | Applicant may not request that any objection to the | • | • • | | | | |
| 441 | Replacement drawing sheet(s) including the correct | | | | | | |
| | The oath or declaration is objected to by the E | examiner. Note the attached O | ffice Action or form PTO-152. | | | | |
| Priority (| ınder 35 U.S.C. § 119 | | | | | | |
| | Acknowledgment is made of a claim for foreig ☐ All b)☐ Some * c)☐ None of: | n priority under 35 U.S.C. § 11 | 9(a)-(d) or (f). | | | | |
| | 1. Certified copies of the priority documents have been received. | | | | | | |
| | 2. Certified copies of the priority document | | | | | | |
| | 3. Copies of the certified copies of the price | ority documents have been red | ceived in this National Stage | | | | |
| | application from the International Burea | • | | | | | |
| * \$ | See the attached detailed Office action for a lis | t of the certified copies not rec | eived. | | | | |
| | | | | | | | |
| Attachmen | t(s) | | | | | | |
| | e of References Cited (PTO-892) | 4) Interview Summ | | | | | |
| | e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 | | ail Date nal Patent Application (PTO-152) | | | | |
| | r No(s)/Mail Date | 6) Other: | | | | | |

Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - Group-I. Claims 1-6, drawn to a method of laying out on a virtual printed circuit board, classified in class 29, subclass 846.
 - Group-II. Claims 7-10, drawn to a method of creating clearances on a virtual printed circuit board, classified in class 29, subclass 825.
 - Group-III. Claims 11-12, drawn to a method of maintaining clearances between traces on a printed circuit board, classified in class 29, subclass 846.
 - Group-IV. Claims 13—18, drawn to a machine-readable medium to reduce crosstalk on a virtual printed circuit board, classified in class 379, subclass 417.
- 2. The inventions are distinct, each from the other because of the following reasons: Groups I, II, II and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01).

In the instant case, the different inventions are unrelated because of the following:

Group-I is separate and distinct from Groups II-IV because Group-I needs the step of "routing". This step is not necessary for Groups II-IV; Group-II is separate and distinct from Group III. Groups-II and III are species and do not have genus; Group II is

Application/Control Number: 09/888,173 Page 3

Art Unit: 2614

separate and distinct from Group IV because they are unrelated inventions; Group III is separate and distinct from Group IV because Group III does not have a machine-readable medium.

- 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classifications and subject matter, the search required for each invention is not required for the other.

 Therefore, restriction for examination purposes as indicated above is proper. See MPEP 806.05 (d).
- 4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
- 5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently filed petition under 37 CFR 1,48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 2614

6. A shortened statutory period for response to this office action is set to expire **0 (zero) months and 30 (thirty) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of this application (see 35 U.S.C. 133 and MPEP 710.02, 710.02(b)).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramnandan Singh Examiner Art Unit 2646 Page 4